

FIG. 2

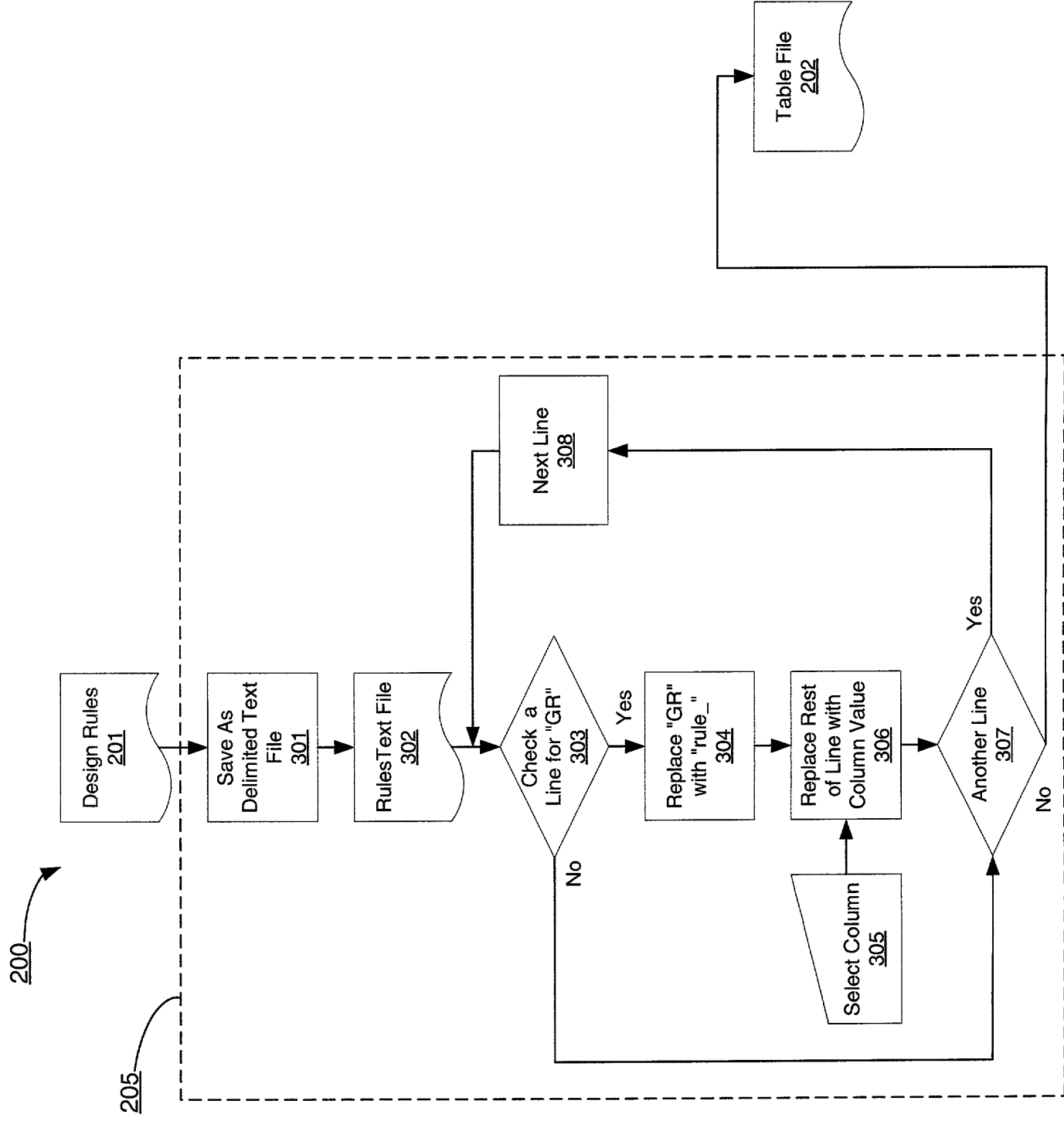


FIG. 3

400

Physical Layout Rules: Release 2.4			
1. Metal Rules			
Rule	Description	Drawn	Sized
GR100	M1 width	1.0	1.2
GR104_x	M1 space when m1 width <= GR104_w	2.0	2.2
GR104	M1 space when m1 width > GR104_w	4.0	4.2
2. Parameters			
Rule	Description	Drawn	Sized
GR104_w	M1 width parameter	5.0	5.2
GRfilename	Name of DRC file	drc_patent.rules	drc_patent.rules
GRdrcversion	Current version of the pdrc file	1.1	1.1
GRrevision	Current version of the rules file	2.4	2.4

FIG. 4

500

Physical Layout Rules Release 2.4

1. Metal Rules

Rule	Description	Drawn	Sized	Final
GR100	M1 width	1.0	1.2	0.6
GR104_x	M1 space when m1 width <= GR104_w	2.0	2.2	1.1
GR104	M1 space when m1 width > GR104_w	4.0	4.2	2.1

2. Parameters

Rule	Description	Drawn	Sized	Final
GR104_w	M1 width parameter	5.0	5.2	2.6
GRfilename	Name of DRC file	drc_patent.rules	drc_patent.rules	drc_patent.rules
GRdrcversion	Current version of the pdrc file	1.1	1.1	1.1
GRrevision	Current version of the rules file	2.4	2.4	2.4

FIG. 5



FIG. 6

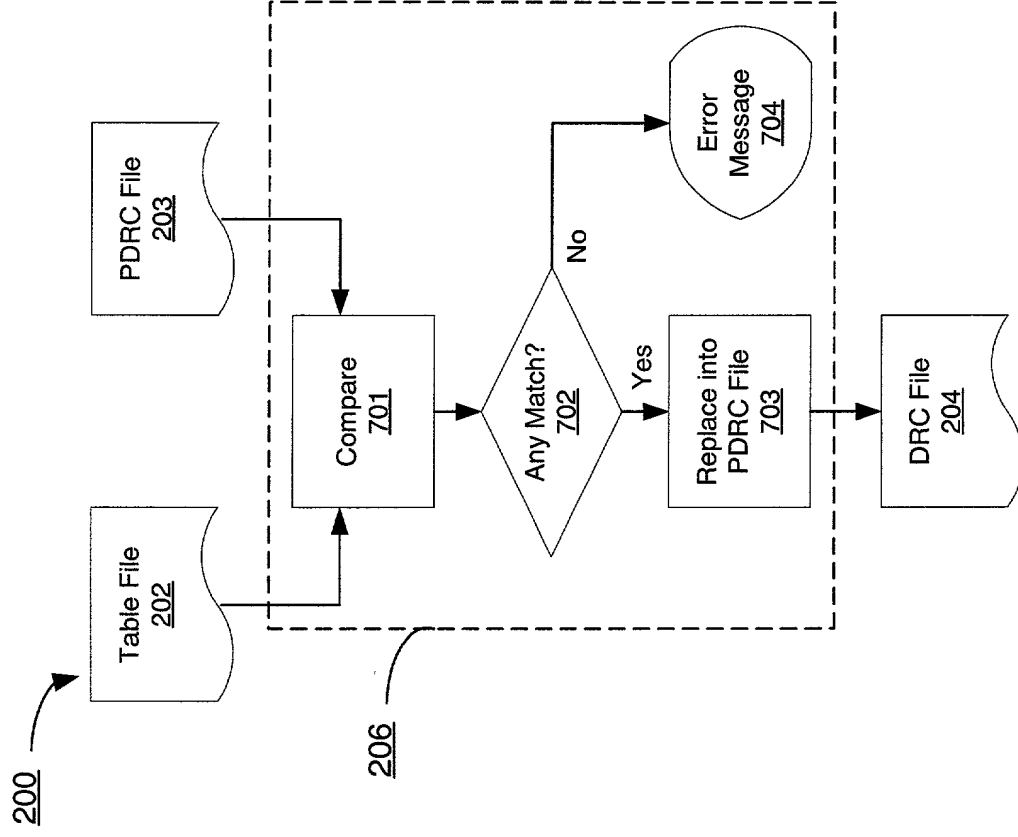


FIG. 7

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```

; File      : rule_filename (derived from: drc_patent.pdrc)
; Version   : DRC file: rule_drcversion Spreadsheet: rule_revision
; Purpose   : This file contains the Assura design rules for the test process.
;           : Before parameter substitution, all parameters have the prefix
;           : "rule_" in front of the rule name.

```

;
; Revision :
; 2002-02-20 MBR 1.1 Created.

```
drcExtractRules(
    fprintf( stderr "\n" )
    fprintf( stderr " Rules File   : Version rule_drcversion\n" )
    fprintf( stderr " Design Rules : Version rule_revision\n" )
    fprintf( stderr "\n" )

    layerDefs( "DF2"
        m1 = layer( "m1" type( "drawing" ) )
    )
    layerDefs( "GDS2"
        m1 = layer( 6 type( 0 ) )
    )
)
```

800



```

;-----
; Derived Layers
;-----
; Find metal whose width is greater than rule_104_w
m1_104 = geomSize( m1 -rule_104_w/2.0 downUp )

; Find metal whose width is less than or equal to rule_104_w
m1_104_x = geomAndNot( m1 m1_104 )

;-----
; Metal Rules
;-----
drc( m1 width < rule_100
    "{100} M1 width < rule_100"
)
drc( m1_104_x sepNotch < rule_104_x
    "{104_x} M1 space < rule_104_x (if line width <= rule_104_w)"
)
drc( m1_104 sepNotch < rule_104
    "{104} M1 space < rule_104 (if line width > rule_104_w)"
)

); End of drcExtractRules

```

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FIG. 8B

900

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File : drc_patent.rules (derived from: drc_patent.pdrc)
 Version : DRC file: 1.1 Spreadsheet: 2.4
 Purpose : This file contains the Assura design rules for the test process.
 Before parameter substitution, all parameters have the prefix
 "rule_" in front of the rule name.

Revision :
 ; 2002-02-20 MBR 1.1 Created.

drcExtractRules(

```
fprintf( stderr "\n" )
fprintf( stderr " Rules File : Version 1.1\n" )
fprintf( stderr " Design Rules : Version 2.4\n" )
fprintf( stderr "\n" )
```

```
layerDefs( "DF2"
    m1 = layer( "m1" type( "drawing" ) )
)
layerDefs( "GDS2"
    m1 = layer( (6 type( 0 ) ) )
)
```

FIG. 9A

FIG. 9B

FIG. 9A



```
-----  
; Derived Layers  
-----  
; Find metal whose width is greater than 5.0  
m1_104 = geomSize( m1 -5.0/2.0 downUp )  
  
; Find metal whose width is less than or equal to 5.0  
m1_104_x = geomAndNot( m1 m1_104 )  
  
-----  
; Metal Rules  
-----  
drc( m1 width < 1.0  
    "{100} M1 width < 1.0"  
)  
drc( m1_104_x sepNotch < 2.0  
    "{104_x} M1 space < 2.0 (if line width <= 5.0)"  
)  
drc( m1_104 sepNotch < 4.0  
    "{104} M1 space < 4.0 (if line width > 5.0)"  
)  
); End of drcExtractRules
```

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FIG. 9B

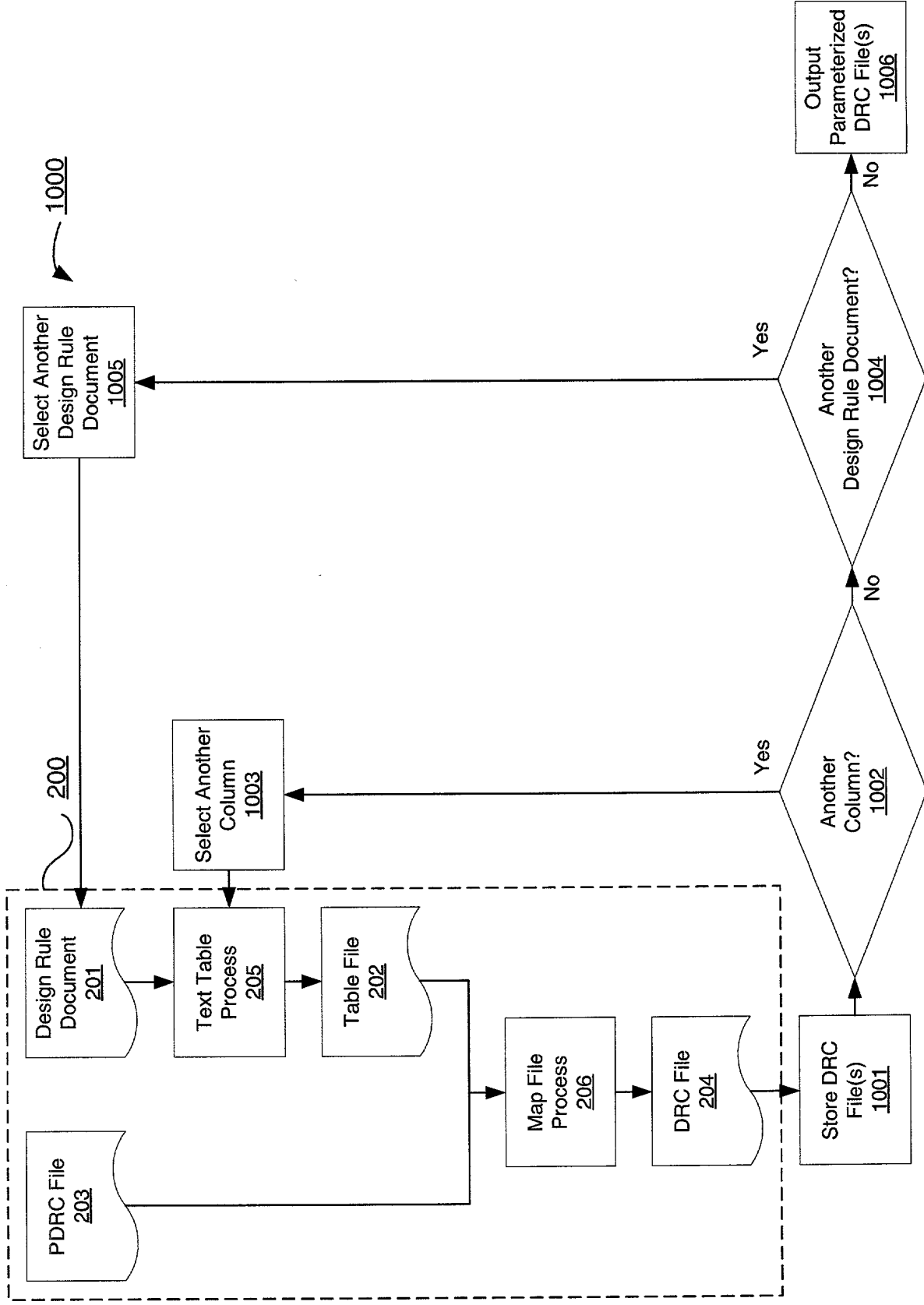


FIG. 10

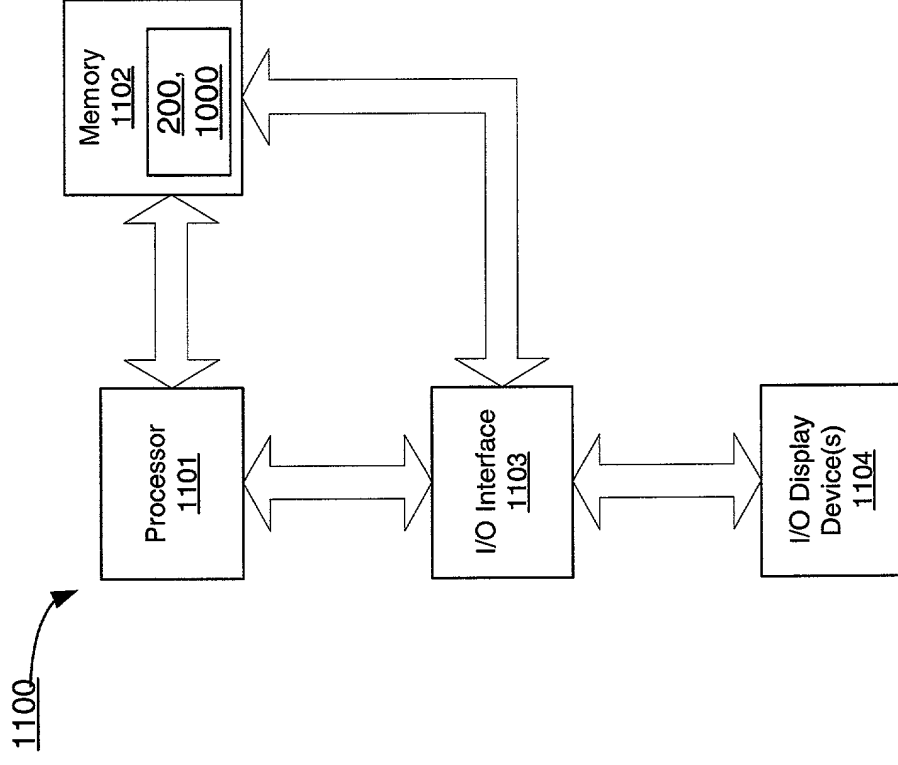


FIG. 11